One-Year Follow-Up Effects of a Cognitive Behavior Therapy-Based Transdiagnostic Program for Emotional Problems in Young Children: A School-Based Cluster-Randomized Controlled Trial

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Abstract

Background: The present study examined the long-term efficacy of a transdiagnostic prevention program, Super Skills for Life (SSL), among young children with emotional problems. SSL is based on the principles of cognitive behavioral therapy, behavioral activation, and social skills training.

Methods: One-hundred twenty-three Spanish-speaking children, aged 6 to 8 years, and their parents participated in the study. They were recruited from ten schools. Schools were randomly allocated to either the intervention (IG) or waiting-list control (WLC) groups. The children's parent completed a set of questionnaires to measure their child's anxiety and depressive symptoms, general difficulties and positive attributes, and psychosocial impairment. Parent's assessment at baseline and at a 12-month follow-up was assessed using an intent-to-treat approach.

Results: The IG, compared to WLC group, showed significant baseline-to-follow-up reductions in anxiety and depressive symptoms, as well as in behavioral difficulties and psychosocial impairment in various life domains.

Limitations: The small sample size and the reliance on parental reports were the major limitations of this study.

Conclusions: This study provides initial evidence of the long-term effects of SSL, suggesting that it is a promising indicated preventive intervention for young children with emotional problems.

Keywords: Super Skills for Life, anxiety, depression, young children, prevention

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1. Introduction

Anxiety and depression are among the most frequent mental health problems in children, which commonly comorbid (Costello et al., 2003; Polanczyk et al., 2015). The presence of these emotional problems and their frequent comorbidity has already been reported from early ages (e.g., Egger and Angold, 2006; Wichstrøm et al., 2012); the comorbidity between anxiety and depression in children has been reported as being comparable to that in adults (Rhode et al., 2013). Furthermore, if untreated, an early onset anxiety and depression is linked with a wide range of psychosocial impairments, including psychological distress, academic impairment, deficit in social skills and interactions, peer problems and rejection, worse course, suicide risk; among children and adolescents, the presence of comorbidity is related to higher impairment and suicide attempts, poorer treatment response and prognosis compared to the presence of anxiety only or depression only (Coplan and Ooi, 2013; Egger and Angold, 2006; Garber and Weersing, 2010; Werner-Seidler et al., 2017).

Although the importance of preventing anxiety and depression during early childhood is widely acknowledged, only a handful of preventive programs are available to target emotional problems for young children up to the age of eight (Bayer et al., 2009). This is surprising because primary school years is a critical developmental stage, given that the transition and adaptation to primary school may imply a stressful process with new challenges (e.g., difficulties to follow the school rules, learning requirements, and peer conflicts) that can negatively affect children's wellbeing and their social and academic development. Maladjustment to primary school is frequently related to social

and school difficulties, and anxiety, and it increases the likeliness of developing mental health problems (Monkevicienė et al., 2006; Wong, 2014). In this regard, it has also been noted that, for young school-aged children (6-8 years-old), there is still a lack of program focusing on the prevention of anxiety and depression compared to existing programs which have been developed for older children (see Phophillat et al., 2016).

Overall, prevention programs for anxiety or depression in children and adolescents are effective in reducing emotional problems and the risk of developing targeted anxiety and depressive disorders at post-intervention and at up to 9-12 months after the intervention (see Stockings et al., 2016). However, significant but small effects of prevention programs on anxiety and depressive symptoms have been reported at post-intervention and 12-month follow-up (see Werner-Seidler et al., 2017). Some studies have also reported mixed results of such disorder-specific prevention interventions on secondary outcomes of anxiety or depression (Garber and Weersing, 2010; Garber et al., 2016; Stallard et al., 2014). In this regard, Stallard et al. (2014) suggested that specific-disorder prevention interventions may be valid for the targeted disorder but may not necessarily improve other comorbid emotional problems.

These findings, together with the high comorbidity of anxiety and depression, have suggested support for using transdiagnostic prevention programs for preventing the incidence of anxiety and depressive disorders by addressing common core risk factors or mechanisms (e.g., negative affectivity and thinking, stress, avoidance/withdrawn behavior) through a single protocol, as it may produce larger effects on both conditions more efficiently, compared to specific-disorder prevention interventions (Garber et al., 2016; McDermott, 2015). The appropriateness of developing transdiagnostic prevention interventions for anxiety and depression on the

basis of the cognitive-behavioral therapy (CBT) approach has also been emphasized (Neyhm, 2010).

Interest in the transdiagnostic perspective for the prevention of childhood anxiety and depression has increased in recent years, however, protocol using this approach is still lacking; thus, there is hardly any randomized controlled trials (RCT) data based on the transdiagnostic approach for the treatment of childhood anxiety and depression (Garber et al., 2016). Recent studies that used transdiagnostic programs in treating children with anxiety and depression have shown promising results (e.g., Kennedy et al., 2019; Weersing et al., 2017). However, in the area of prevention, there is still a lack of CBT-based transdiagnostic programs and RCT studies targeting children. One of the few available programs for young children aged 6-8 years is the 10-session Aussie Optimism Program: Feelings and Friends (AOP-FF), which is a universal school-based prevention program. However, there is only one RCT study on the short-term efficacy of AOP-FF, which reported a non-significant effects on depression and only significant reductions in overall anxiety symptoms based on parent report (Pophillat et al., 2016).

In this context, the existence of a protocol with a transdiagnostic approach for the prevention of anxiety and depression is noteworthy. One such protocol is Super Skills for Life (SSL; Essau and Ollendick, 2013). It consists of a set of strategies (i.e., psychoeducation, behavioral activation, cognitive restructuring, problem-solving, self-monitoring, as well as training in relaxation and social skills) delivered over eight sessions, normally in the school setting. Thus, SSL includes strategies which address consistent risk factors that are common to both anxiety or depression such as cognitive bias, deficits in social skills, and low self-esteem (see Dozois et al., 2009).

In their first open trial study, Essau et al. (2014) reported a positive impact of SSL among children, aged 8 to 10 years, who have been referred by their teacher as having emotional problems. These authors found significant reductions in anxiety symptoms, as well as in other forms of difficulties such as hyperactivity, conduct and peer problems at the 6-month follow-up. The immediate pre-to-post-intervention gain observed for symptoms of separation anxiety were maintained at follow-up. Recently, the immediate efficacy of SSL in its Spanish-adapted version has been analyzed, comparing an intervention condition to a waiting-list control (WLC) condition in an indicated sample of young Spanish-speaking children aged 6-8 years, selected for the presence of emotional symptoms (i.e., anxiety/depression) (Fernández-Martínez et al., 2019). Compared to the WLC, after the eight SSL sessions, children in the intervention condition showed significant reductions in depressive symptoms, overall anxiety, social anxiety, and physical injury fears, as well as in other secondary outcomes, such as anxiety-related interference at home and emotional symptoms.

To our knowledge, there are no RCTs on the long-term efficacy of SSL in general, or in young children in particular. In this regard, the literature highlights the need for more follow-up data on the prevention of childhood anxiety and depression, in order to determine the durability of effects and to avoid an understatement of efficacy by detecting new effects that may arise over time (Neil and Christensen, 2009; Werner-Seidler et al., 2017).

Thus, the aim of this school-based cluster-randomized controlled trial was to examine the long-term effects of the Spanish adaptation of the SSL. The objective of the present research was to assess for the first time the long-term efficacy (i.e., 12 months after the intervention) in young children with emotional problems. The more specific goal was to examine the efficacy of SSL in reducing anxiety and depressive symptoms

(i.e., primary outcomes). A second goal was to analyze the efficacy of SSL in reducing anxiety-related interference, emotional and behavioral difficulties, and increasing prosocial behavior (i.e., secondary outcomes). On the basis of a previous study by Essau and colleagues (2014), children in the Intervention Group (IG), compared to those in the Wait-List Control (WLC) group, will show a significant reduction in both primary and secondary outcomes at 12-month follow-up assessment.

2. Method

2.1. Participants

The participants were recruited from ten primary schools located in the southeast region of Spain. Schools were randomly distributed to the IG and WLC conditions, with five schools to each condition. School children, aged 6 – 8 years (in Grades 1-3), whose parents reported their child's emotional symptoms were invited to participate in this study. Specifically, these children were required to have a high score (cutoff score of 4) on the Emotional Symptoms subscale of the parent-report Strengths and Difficulties Questionnaire (SDQ-P; Goodman, 1997); a cutoff score of 4 has been considered by Goodman (2001) as indicating an elevated risk of anxiety and/or depression. Exclusion criteria were having learning or developmental problems, and receiving any psychiatric/psychological intervention. A total of 123 Spanish-speaking children (M = 6.89, SD = .79) enrolled in 1st to 3rd grades and their parents (i.e., one informant per child, 78.9% female), participated at the baseline assessment. Participants' socio-economic status was medium-to-high. Parents and children participated voluntarily, and informed consent was obtained from the parents. At baseline, the IG comprised 67 children (M_{age} = 6.88, SD = 0.80; 50.7% female) and the WLC comprised 56 children (M_{age} = 6.88, SD = 0.78; 37.5% female) (Fernández-Martínez et al., 2019). The 12-

month follow-up assessment, involving 107 children and their parent (IG = 61; WLC = 46), took place between June 2017–June 2018.

2.2. Super Skills for Life

SSL was developed to help children as young as six years of age to deal with stressful situations that otherwise would lead to anxiety and depression. SSL is based on the principles of CBT, behavioral activation, and social skills training (Essau and Ollendick, 2013; Essau et al., 2014). It uses a transdiagnostic approach by targeting the core common risk factors of anxiety and depression such as low self-esteem, cognitive bias, and deficits in social skills. It consists of eight 45-minute sessions which can be delivered once a week to small groups within the school setting. The program comprises two resource materials: the facilitators' manual and a workbook for the children which contains all the activities and homework. The facilitator's manual contains structured steps on how to deliver SSL; a recent study by Essau et al. (2019) indicated that SSL can be delivered effectively by SSL-trained professionals with a wide range of expertise and disciplines (e.g., social work, counselling, teaching). The methodology used for learning techniques/skills varied (e.g., reading and individual or group exercises, social performances thorough videotaped role-playing, video feedback with prior cognitive preparation, and homework) together with continuous reinforcement, ensuring that the children receive positive experiences during the sessions.

2.3. Procedure

The Ethics Board of (*blinded*) University (Spain) approved this study. The present study used the European-Spanish adaptation of SSL. The adaptation process from English involved two bilingual psychologists, a focus group of five experts in child psychology, and a focus group with six participants aged 6–8 years. Twelve public and private schools in urban areas of south-eastern Spain were contacted; of these, ten

schools agreed to participate. The head teacher helped to establish the first contact with the children's parents. Once the schools were randomly allocated to either the IG and WLC, the parents were contacted. All of the parents received an e-mail with information and the project link to an online informed consent so that they could voluntarily participate, completing the pre-test assessment. Parents were informed about the results, and only children who fulfilled the selection criteria were enrolled in this study. At 1-year post-intervention, parents (i.e., father or mother who completed the pre-test) were again requested by e-mail to complete the online assessment. The online assessment took about 20 minutes. The SSL weekly sessions were delivered to groups of 4-6 children at their school. Facilitators were seven psychologists with a Psychology Masters' degree. All had received a one-day training course on SSL and subsequent supervision by the principal researcher. The WLC group received the program after the 12-month follow-up.

2.4. Measures

2.4.1. Primary outcomes

2.4.1.1. Anxiety

The parent-report version of the Spence Children's Anxiety Scale (SCAS-P; Nauta et al., 2004) is a 38-item parent-report that was used to measure symptoms of six anxiety disorders in children aged 6–18 years: generalized anxiety, panic/agoraphobia, separation anxiety, social anxiety, obsessive compulsive disorder, and physical injury fears. The SCAS total score (i.e., called *overall anxiety* in this study) is obtained by adding all the items. Items are rated in a 4-point scale ranging from 0 (*never*) to 3 (*always*). Higher scores indicate higher severity of symptoms. Previous research has shown that the SCAS-P is a valid and reliable instrument (α = .85 – .90), and that it can be potentially useful for cross-cultural measurement of anxiety symptoms (e.g., Li et al.,

2016). Ordinal alpha in the current study was high (ordinal alpha = .89). Reliability was also high for the subscales: social anxiety (ordinal alpha = .72), panic/agoraphobia (ordinal alpha = .79), and obsessive-compulsive disorder (ordinal alpha = .80). Moderate coefficients of reliability were found for the subscales: physical injury fears (ordinal alpha = .55), separation anxiety (ordinal alpha = .63), and generalized anxiety (ordinal alpha = .65).

2.4.1.2. Depression

The parent-report version of the Mood and Feelings Questionnaire (MFQ-P; Angold et al., 1995) was used to measure depression in children aged 6-17 years. Parents rate each of the 34-item using a 3-point scale (0 = *not true*, 1 = *somewhat true*, and 2 = *true*). The MFQ-P total score (i.e., called *depression* in this study) is obtained by adding the ratings for all the 34 items. Higher scores indicate more severe depressive symptoms. The MFQ-P has been shown to have high internal consistency (α = .96) and test-retest reliability, good criterion validity, and that discriminates between depressed and non-depressed children and adolescents (Daviss et al., 2006). Reliability was excellent in the current study (ordinal alpha = .94).

2.4.2. Secondary outcomes

2.4.2.1. Emotional and behavioral difficulties and positive attributes

The parent-report version of the Strengths and Difficulties Questionnaire (SDQ-P; Goodman, 1997) was used to measure children's general difficulties and positive attributes. The SDQ-P assesses a range of difficulties in children and youth aged 4–17 years thorough five subscales: Emotional Symptoms (i.e., anxiety and depression), Hyperactivity/Inattention, Conduct Problems, Peer Relationship Problems, and prosocial behavior. The total SDQ-P score (i.e., total difficulties) is obtained by adding the scores of these subscales, except for Prosocial Behavior subscale. Parents are asked

to rate the 25 items of the SDQ-P using a 3-point scale, ranging from 0 (*not true*) to 2 (*certainly true*). Higher scores denote higher levels of difficulties, except for the Prosocial subscale, where higher scores reflect more positive attributes. The psychometric properties of the SDQ-P have been supported, showing an adequate internal consistency (α = .82) and satisfactory validity (Goodman, 2001). In the current study, total reliability was high (ordinal alpha = .85). Reliability for the subscales was also high for Conduct Problems (ordinal alpha = .77), Hyperactivity/Inattention (ordinal alpha = .82), Peer Relationship Problems (ordinal alpha = .86), and Prosocial behavior (ordinal alpha = .79), except for Emotional Symptoms (ordinal alpha = .53) that was moderate (Hinton et al., 2004).

2.4.2.2. Child anxiety life interference in child and parents' life

The parent-report version of the Child Anxiety Life Interference Scale (CALIS-P; Lyneham et al., 2013) comprises 16 items measuring child anxiety-related interference thorough three subscales, two measuring child-anxiety-related impact in their own life in two domains (i.e., child inside home and child outside home), and the other focusing on how child anxiety impacts the parents' life (i.e., parent life). Parents are asked to score each item using a 5-point scale, ranging from 0 (*not at all*) to 4 (*a great deal*). The CALIS-P total score (i.e., *overall child-anxiety-related interference*) is calculated by adding ratings of all the items. Higher scores indicate greater child-anxiety-related interference. The original study by Lyneham et al. (2013) supported the psychometric properties of the CALIS-P, showing strong internal consistency (alpha coefficients were .88 and .90 for the father's and mother's report, respectively) and test-retest reliability, as well as good validity and sensitivity to treatment change. In the current study, reliability was excellent for the total scale (ordinal alpha = .91). Reliability for its

subscales was high: outside home (ordinal alpha = .86), inside home (ordinal alpha = .70), and parent interference (ordinal alpha = .88).

2.5. Statistical Analysis

All analyses were conducted using SPSS v25. As an intent-to-treat perspective was used, all cases were included in the analyses regardless of the number of sessions of the program the children attended (Hill, 1961). Differences between children who dropped out of the study and those who did not were explored using attrition analysis. Baseline equivalence of the two conditions (intervention and control) was analysed using cross-tabulation for categorical variables and Student's *t*-test for quantitative variables. We calculated Cohen's (1988) effect size for the differences that were statistically significant. Long-term effects of SSL were explored using generalized estimating equations (GEE), which is a recommended analytic approach when participants are clustered in schools in order to control correlations among responses (Liang and Zeger, 1986). GEE presents several advantages compared to other methods. GEE increases power when the sample size is small and a number of repeated measures are used. It also controls for correlations between responses when individuals are clustered, estimates changes in longitudinal studies and its robust to incomplete data (El Rafihi-Ferreira et al., 2018; Liang and Zeger, 1986). Analyses were adjusted for baseline measure of the outcome, variables that differed among conditions at baseline, age, gender, and clustering within schools. The randomization units were the schools, while the units of analysis were the children involved in the study.

In the current study, clinically significant emotional symptoms range was set using the cutoff score at or above 26 in boys and 28 in girls for the SCAS-P (anxiety), and at 27 or above for MFQ-P (depression). The cutoffs were selected for being probably the most commonly used in the literature (Daviss et al., 2006; Spence, 2000).

We studied the evolution of children who presented clinically significant emotional symptoms in the baseline and 12-month follow up to test the impact of SSL to reduce clinically significant emotional symptoms in this subsample as well.

Reliability was calculated using ordinal alpha because of the ordinal nature of the measures. Values above .90 are considered excellent, from .70 to .90 are high, from .50 to .70 are moderate and less than .50 are considered low (Hinton et al., 2004).

3. Results

3.1. Attrition

Figure 1 shows the study design and the flow of participants at baseline and at 12-month follow-up. A total of 107 students (13% dropout rate) completed the 12-month follow-up survey in June 2018. Six participants (9%) from the IG and 10 children (17.9%) from the WLC dropped out of the study. The dropouts were due to parents not responding to the follow-up evaluation. Analyses revealed that the odds of dropping out did not differ by experimental condition ($\chi^2 = 2.13$, $p = .14$). Dropping out at the follow-up was unrelated to gender ($\chi^2 = 1.34$, $p = .24$) and to the following factors at baseline: age ($t = 0.77$, $p = .44$), emotional (SDQ Emotional subscale) ($t = 0.76$, $p = .45$) and depressive symptoms (MFQ total) ($t = 0.55$, $p = .58$), overall child-anxiety-related interference (CALIS total) ($t = 0.84$, $p = .40$), and overall anxiety symptoms (SCAS total) ($t = -0.10$, $p = .91$). These results indicated that children who dropped out of the study were similar to those who stayed in the study until the 12-month follow-up assessment. Additionally, children's attendance to SSL sessions was high ($M = 7$; $SD = 1$), with 82.1% of the children ($n = 55$) attended almost all (seven sessions) or all the sessions.

3.2. Baseline

Table 1 shows the sociodemographic characteristics of the participants assessed at the 12-month follow-up by groups. At baseline, the intervention and control groups were equivalent in the sociodemographic variables, except for parents' education (χ^2 = 7.33, p = .02, d = 0.08) and parents' mean age (t = 3.32, p = .001, d = 0.66). According to Cohen (1988), effect sizes were small and moderate, respectively. In the IG, there was a higher percentage of parents who reported having high education compared to the WLC group (60.6% vs. 45.6%). However, in the WLC group, there was a higher percentage of parents with secondary education than in the IG (43.5% vs. 19.7%). Parents in the IG were older than parents in the WLC (42.83 vs. 39.76 years).
The two groups did not differ in any of the study variables at pre-test, except for the SDQ Emotional Symptoms subscale (t = 2.70, p = .008, d = 0.52) which was significantly higher in the IG than those in the WLC. Although the effect size of the difference was moderate, this variable was controlled in the analysis. Preintervention and 12-month follow-up marginal means and standard deviations of the outcomes by IG are reported in Table 2.

3.3. Effects of Intervention

Table 3 shows the results of the intervention effect over the 1-year follow-up period. Participants who participated in the SSL, compared to those in the WLC, exhibited significant baseline-to-follow-up reductions on the following primary outcomes: depression (p < .01; adjusted OR [AOR] = .01, 95% CI: .0001, .22) (Fig. 2), overall anxiety (p < .01; AOR = .002, 95% CI: .0001, .18) (Fig. 3), social anxiety (p < .05; AOR = .22, 95% CI: .06, .76), panic/agoraphobia (p < .01; AOR = .21, 95% CI: .007, .63), and physical injury fears (p < .01; AOR = .26, 95% CI: .10, .70).

At the baseline, children belonging to the IG and WLC group presented scores in the MFQ-P (depression) slightly higher than 11, which is significantly under 27, the

cut-off to optimally discriminate children with major depressive episode (from the rest), according to Daviss et al. (2006). At the 12-month follow-up, the IG significantly reduced the score from 11 to 7, while the WLC group maintained a similar group mean score than in the baseline. The total score of the SCAS (total anxiety) was around 27 for both conditions in the baseline, which corresponds to 57th percentile for boys and 40th percentile for girls (Spence, 2000). At the 12-month follow-up, children from the IG scored 19.96 (which corresponds to 40th percentile for boys and 19th percentile for girls), while children from the WLC maintained a similar group mean score than in the baseline (Table 2). Therefore, in the 12-month follow-up, children in the SSL group were less likely to present depression and anxiety symptoms, compared to the WLC group.

On the secondary outcomes, children in the IG, compared to those in the WLC, displayed significant decreases from the baseline to follow-up on scores of: total difficulties (p = .01; AOR = .08, 95% CI: .01, .61) and emotional symptoms (p < .001; AOR = .20, 95% CI: .08, .49) as measured by the SDQ. At the baseline, children from both conditions scored approximately 15 in the Total difficulties' subscale of the SDQ, which corresponds to the borderline group. However, at the 12-month follow up, children who belonged to the IG were classified into the normal band (with a group mean close to 12). The WLC group maintained a similar group mean score than in the baseline and was still classified in the borderline band. Regarding the emotional subscale of the SDQ, children belonging to both conditions were classified in the borderline group, with a group mean very close to 5 (Table 2). However, at the 12-month follow-up, children from IG were classified as normal, with a mean group of 3.21. The WLC group maintained the level of emotional problems in the follow-up, and was still classified in the borderline band proposed by Goodman (www.sdqinfo.com).

Moreover, children in the IG, compared to those in the WLC, showed significant decreases from the baseline to follow-up on scores of: Overall child anxiety-related interference ($p < .01$; AOR = .0002, 95% CI: .001, .16), and the child-anxiety-related interference domains measured by the CALIS-P —child inside ($p < .05$; AOR = .13, 95% CI: .03, .50) and outside home ($p < .05$; AOR = .15, 95% CI: .03, .74)—, and parent life interference ($p = .05$; AOR = .11, 95% CI: .01, 1). Although a cut-off for CALIS-P is not available, in both evaluations (pretest and follow-up), the group means for the total score of the CALIS-P and its subscales in the SSL and WLC groups were lower than those obtained for the clinical sample, but slightly higher than those from the community sample in the original study (Lyneham et al., 2013). This result is not surprising due to our sample was subclinical, which means that our sample present higher anxiety interference than community sample, but not so high as in a clinical sample.

3.4. Reduction of clinically significant symptoms of anxiety and depression

At baseline, 53.7% ($n = 36$) from the IG and 46.4% ($n = 26$) of the WLC group presented clinically significant symptoms of anxiety and depression; there were not differences between both conditions ($p = .42$). At the 12-month follow-up, 23.9% ($n = 16$) of the IG and 32.1% ($n = 18$) of the WLC group presented clinically significant symptoms of anxiety and depression. Statistically significant differences at the follow-up were not found between both conditions ($p = .30$), and this may be explained by the small sample size. However, the reduction of the symptoms in the IG was almost 30%, while it was of 14.3% for the WLC group.

4. Discussion

The present study was the first to have examined the long-term effectiveness of SSL in an indicated sample of young Spanish-speaking children. In line with our

hypothesis, children who participated in the SSL showed small, but statistically significant reduction of anxiety and depressive symptoms one year after the intervention. These results suggested long-term effects of SSL in these primary outcomes, as the results of immediate post-intervention effects indicated a significant impact on the same outcomes (Fernández-Martínez et al., 2019). Our results are also in accordance to the findings from other authors who indicated that a prevention RCT study using another CBT-based program targeting older children aged 8-13 years, achieve maintaining the reduction of anxiety and depressive symptoms up to 1-year after the intervention (Kösters et al., 2015). However, the effect of SSL was greater in the post-test compared to the follow-up, based on the effect sizes of the differences that were statistically significant. The results on the primary outcomes of our study are in line with meta-analytic studies of preventive anxiety and/or depression interventions in children, indicating small, but significant effects, on these internalizing symptoms at follow-up period (e.g., Stockings et al., 2016; Teubert and Pinquart, 2011; Werner-Seidler et al., 2017). The current study found an additional gain at the 12-month follow-up in another primary outcome, corresponding to symptoms of panic/agoraphobia. In the 12-month follow-up, the odds of presenting panic/agoraphobia in the SSL group are 21% less than in the WLC group.

Additionally, a second goal of this research was to examine the efficacy of SSL at the 12-month post-intervention in a range of secondary outcomes. The findings revealed that the post-intervention gains found by Fernández-Martínez et al. (2019) right after the eight program sessions in outcomes of child-anxiety-related interference inside the home and SDQ emotional symptoms (i.e., anxiety and depression) were also maintained at 12-month follow-up. However, effect sizes of the differences between SSL and WLC group tended to decrease from the posttest to the 12-month follow-up

evaluation, which suggest that effects of SSL are higher at short-term compared to the long-term. Furthermore, compared with the immediate results of SSL reported in Fernández-Martínez et al. (2019), a significant reduction in total difficulties –emotional and behavioral difficulties– as measured by the SDQ-P (Goodman, 2001), as well as reductions in overall child-anxiety-related interference, interference in the child's life outside the home and in the parents' life domains were observed in the SSL group (compared with the WLC group) 1-year postimplementation.

Taken together, the significant improvements found at follow-up in primary and secondary outcomes suggest that, one year after the intervention, the SSL gains at post-intervention (Fernández-Martínez et al., 2019) are maintained, although effect sizes were lower, and the positive impact of SSL affects a greater number of outcomes. This positive impact one year after the intervention is in line with an early study of SSL (Essau et al., 2014) and other studies using CBT-based interventions for children with internalizing problems (e.g., Essau et al., 2012; Neil and Christensen, 2009). These studies revealed significant positive changes in symptoms at follow-up and found improvements on a greater number of outcomes during the follow-up period compared to the immediate post-intervention. This finding suggests the importance of including follow-up assessments for a better estimation of prevention intervention effectiveness (Neil and Christensen, 2009; Werner-Seidler et al., 2017). Review studies that focus on preventive interventions for anxiety and/or depression found that short-term effects tend to decrease over time, as the study conducted by Stockings et al. (2016). These authors explain that there is no clear explanation for those findings and suggest that provide booster sessions may be desirable to maintain the effects of interventions over time.

In contrast to our expectations, the program did not have significant long-term effects on some primary (i.e., separation and generalized anxiety, obsessive-

compulsive) and secondary (i.e., conduct problems, hyperactivity/inattention, peer problems, prosocial behavior) outcomes, in consistent with the post-test assessment (Fernández-Martínez et al., 2019). Although speculative, a failure to find significant improvements in the primary outcomes could imply that the SSL protocol does not adequately address these issues in young children, whereas non-significant effects in secondary variables may be due to the fact that the program is not intended to address these specific issues, as SSL mainly targets internalizing problems. Our non-significant findings are not consistent with the SSL open-trial (Essau et al., 2014) that found significant improvements at the 6-month follow-up for those outcomes, except for obsessive-compulsive disorder and prosocial behavior. However, such positive impact could not be clearly attributed to SSL because the original study did not include a control condition. It is necessary to perform further RCT studies using SSL with children from other settings (e.g., in the hospitals or community).

Nevertheless, complementary to Essau et al.'s (2014) research with older children, our study shows through a longer follow-up that SSL may generate benefits in anxiety and depressive symptoms, as well as in other issues that were not observed in the original study, such as interference related to anxiety and SDQ general difficulties. Another similar program available for young children aged 6-8 years, the AOP-FF, showed improvements at post-intervention in symptoms of anxiety through parent-reports, but not in depression or in the SDQ-P outcomes (i.e., total difficulties and prosocial behavior) (Pophillat et al., 2016). However, because follow-up data of the AOP-FF is not available, it is not possible to compare it with our SSL follow-up results.

4.1. Limitations

This study presents some limitations to consider. First, the sample size was small; therefore, further RCT with larger samples are needed. Second, the assessment

relied on the parents' reports. This was due to the lack of adequate self-reports of internalizing symptoms for children as young as 6-7 years at the time of the study, similar to that reported by other authors (Phophillat et al., 2016). Third, the assessment relied only on one parent. As parents may provide different information about their young children's internalizing and externalizing problems (Chiorri et al., 2016), the results of this study might be different if responses had been collected from both parents when possible. Finally, a WLC group was used in order to establish whether or not an intervention (SSL) was superior to no intervention (Nathan and Gorman, 1998). However, the WLC group did not receive an intervention equivalent to that of the IG. Therefore, positive effects related to the attention that children in the IG received from researchers (Hawthorne effect) may have inflated effect size of the program, as suggested by previous studies (McCarney et al., 2007; Morales et al., 2018). Thus, future research should compare SSL to an active control group to determine whether SSL is superior to an effect of the regular meetings with a small group of children, or a result of receiving special attention.

4.2. Conclusion

Despite the limitations noted, this is the first study assessing the efficacy of SSL at the 12-month follow-up and using a control condition in an indicated sample of young children aged 6-8 years. This trial provides initial support for the long-term effects of SSL, showing significant reductions in anxiety and depressive symptoms one year after its application, as well as significant improvements in psychosocial impairments. Given the need for more RCT studies on transdiagnostic prevention in children and youth (Stockings et al., 2016), as well as prevention interventions designed for emotional problems in young children (Bayer et al., 2009; Phophillat et al., 2016),

our results suggest that SSL seems a promising program for an indicated preventive intervention in young children with high levels of anxiety and/or depressive symptoms.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

Role of the funding source

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References

Angold, A., Costello, E.J., Messer, S.C., Pickles, A., Winder, F., Silver, D., 1995. Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. Int. J. Methods Psychiatr. Res. 5, 237–249.

Bayer, J., Hiscock, H., Scalzo, K., Mathers, M., McDonald, M., Morris, A., Birdseye J., Wake, M., 2009. Systematic review of preventive interventions for children's mental health: What would work in Australian contexts? Aust. N. Z. J. Psychiatry. 43(8), 695–710. doi:10.1080/00048670903001893

Bernstein, G.A., Bernat, D.H., Victor, A.M., Layne, A.E., 2008. School-based interventions for anxious children: 3-, 6-, and 12-month follow-ups. J. Am. Acad. Child Adolesc. Psychiatry. 47, 1039–1047. doi:10.1097/CHI.ob013e31817eecco

Chiorri, C., Hall, J., Casely-Hayford, J., Malmberg, L.E., 2016. Evaluating measurement invariance between parents using the Strengths and Difficulties Questionnaire (SDQ). Assessment. *23,* 63–74. doi:10.1177/1073191114568301

Cohen, J., 1988. Statistical Power Analysis for the Behavioral Sciences, second ed. Erlbaum, Hillsdale, NJ.

Coplan, R.J., Ooi, L., 2013. Young children's peer relations: Links with early developing anxiety and depression, in: Tremblay R.E., Boivin, M., Peters R.DeV. (Eds.), Encyclopedia on Early Childhood Development. Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, Quebec, pp. 1–7.

Costello, E.J., Mustillo, S., Erkanli, A., Keeler, G., Angold, A., 2003. Prevalence and development of psychiatric disorders in childhood and adolescence. Arch. Gen. Psychiatry. 60, 837–844. doi:10.1001/archpsyc.60.8.837

Daviss, W.B., Birmaher, B., Melhem, N.A., Axelson, D.A., Michaels, S.M., Brent, D.A., 2006. Criterion validity of the mood and feelings questionnaire for depressive episodes in clinic and non-clinic subjects. J Child Psychol Psych Allied Dis. 47, 927–934. doi:10.1111/j.1469-7610.2006.01646.x

Dozois, D.J.A., Seeds, P.M., Collins, K.A., 2009. Transdiagnostic approaches to the prevention of depression and anxiety. J. Cogn. Psychother. 23, 44–59. doi:10.1891/0889-8391.23.1.44

Egger, H.L., Angold, A., 2006. Common emotional and behavioral disorders in preschool children: presentation, nosology, and epidemiology. J. Child Psychol. Psychiatry. 47, 313–337. doi:10.1111/j.1469-7610.2006.01618.x

El Rafihi-Ferreira, R., Silvares, E.F., Asbahr, F.R., Ollendick, T.H., 2018. Brief treatment for nighttime fears and co-sleeping problems: A randomized clinical trial. J. Anxiety Disord. 58, 51-60.

Essau, C.A., Ollendick, T.H., 2013. The Super Skills for Life Programme. University of Roehampton, London, UK.

Essau, C.A., Sasagawa, S., Jones, G., Fernandes, B., Ollendick, T.H., 2019. Evaluating the real-world effectiveness of a Cognitive Behavior Therapy-based transdiagnostic programme for emotional problems in children in a regular school setting. J. Affect. Disord. 253, 357–365. doi:10.1016/j.jad.2019.04.036

Essau, C.A., Olaya, B., Sasagawa, S., Pithia, J., Bray, D., Ollendick, T.H., 2014. Integrating video-feedback and cognitive preparation, social skills training and behavioural activation in a cognitive behavioural therapy in the treatment of childhood anxiety. J. Affect. Disord. 167, 261–267. doi:10.1016/j.jad.2014.05.056

Essau, C.A., Conradt, J., Sasagawa, S., Ollendick, T.H., 2012. Prevention of anxiety symptoms in children: A universal school-based trial. Behav. Ther. 43, 450-464. doi:10.1016/j.beth.2011.08.003

Fernández-Martínez, I., Morales, A., Espada, J.P., Essau, C.A., Orgilés, M., 2019. Effectiveness of the program Super Skills For Life in reducing symptoms of anxiety and depression in young Spanish children. Psicothema. 31, 298–304. doi:10.7334/psicothema2018.336

Garber, J., Weersing, V.R., 2010. Comorbidity of anxiety and depression in youth: Implications for treatment and prevention. Clin. Psychol. (New York). 17, 293–306. doi:10.1111/j.1468-2850.2010.01221.x

Garber, J., Brunwasser, S. M., Zerr, A. A., Schwartz, K. T., Sova, K., Weersing, V. R., 2016. Treatment and Prevention of Depression and Anxiety in Youth: Test of Cross-Over Effects. Depression and Anxiety, 33(10), 939-959. doi: 10.1002/da.22519.

Goodman, R., 1997. The Strengths and Difficulties Questionnaire: A research note. J Child Psychol. Psychiatry. 38, 581–586. doi:10.1111/j.1469-7610.1997.tb01545.x

Goodman, R., 2001. Psychometric properties of the strengths and difficulties questionnaire. J. Am. Acad. Child Adolesc. Psychiatry. 40, 1337-1345.

Hill, A.B., 1961. Principles of Medical Statistics, seventh ed. Oxford University Press, New York.

Hinton, P.R., Brownlow, C., McMurray. I., Cozens, B., 2004. SPSS Explained. Routledge Taylor & Francis Group, London.

Kennedy, S.M., Bilek, E.L., Ehrenreich-May, J., 2019. A randomized controlled pilot trial of the Unified Protocol for Transdiagnostic Treatment of Emotional

Disorders in Children. Behav. Modif. 43, 330–360. doi:10.1177/0145445517753940

Kösters, M.P., Chinapaw, M.J., Zwaanswijk, M., van der Wal, M.F., Koot, H.M., 2015. Indicated prevention of childhood anxiety and depression: Results from a practice-based study up to 12 months after intervention. Am. J. Public Health. 105, 2005-2013. doi:10.2105/AJPH.2015.302742

Li, J.B., Delvecchio, E., Di Riso, D., Nie, Y.G., Lis, A., 2016. The Parent-Version of the Spence Children's Anxiety Scale (SCAS-P) in Chinese and Italian Community Samples: Validation and Cross-Cultural Comparison. Child Psychiatry Hum Dev. 47, 369-383. doi:10.1007/s10578-015-0572-9.

Liang, K.Y., Zeger, S.L., 1986. Longitudinal data analysis using generalized linear models. Biometrika. 73, 13–22.

Lyneham, H.J., Sburlati, E.S., Abbott, M.J., Rapee, R.M., Hudson, J.L., Tolin, D.F., Carlson, S.E., 2013. Psychometric properties of the Child Anxiety Life Interference Scale (CALIS). J. Anxiety Disord. 27, 711–719. doi:10.1016/j.janxdis.2013.09.008

McCarney, R., Warner, J., Iliffe, S., Van Haselen, R., Griffin, M., Fisher, P., 2007. The Hawthorne Effect: a randomised, controlled trial. BMC Med Res Methodol. 7(1), 30. Retrieved from https://bmcmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-7-30.

McDermot, R., 2015. The Transdiagnostic Prevention of Emotional Disorders: A Randomized Controlled Study (doctoral dissertation). The University of Western Ontario, London, Ontario, Canada. Retrieved from https://ir.lib.uwo.ca/etd/2960

Monkevicienė, O., Mishara, B.L., Dufour, S., 2006. Effects of the Zippy's Friends Programme on children's coping abilities during the transition from kindergarten

to elementary school. Early Child Educ. J. 34, 53–60. doi:10.1007/s10643-006-0104-0

Morales, A., Espada, J.P., Orgilés, M., Escribano, S., Johnson, B.T., Lightfoot, M., 2018. Interventions to reduce risk for sexually transmitted infections in adolescents: A meta-analysis of trials, 2008-2016. PloS one. 13(6), e0199421.

Nathan, P.E., Gorman, J.E. (Eds.)., 1998. A guide to treatments that work. Oxford University Press, New York.

Nauta, M.H., Scholing, A., Rapee, R.M., Abbott, M., Spence, S.H., Waters, A., 2004. A parent report measure of children's anxiety. Behav. Res. Ther. 42, 813-839. doi:10.1016/S0005-7967(03)00200-6

Neil, L.A., Christensen, H., 2009. Efficacy and effectiveness of school-based prevention and early intervention programs for anxiety. Clin. Psychol. Rev. 29, 208–215. doi:10.1016/j.cpr.2009.01.002

Polanczyk, G., Salum, G., Sugaya, L., Caye, A., Rohde, L., 2015. Annual Research Review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. J. Child Psychol. Psychiatry. 56, 345–365. doi:10.1111/jcpp.12381

Pophillat, E., Rooney, R.M., Nesa, M., Davis, M.C., Baughman, N., Hassan, S., Kane, R.T., 2016. Preventing internalizing problems in 6–8 year old children: A universal school-based program. Front. Psychol. 7, 1928. doi:10.3389/fpsyg.2016.01928

Rohde, P., Lewinsohn, P.M., Klein, D.N., Seeley, J.R., Gau, J.M., 2013. Key characteristics of major depressive disorder occurring in childhood, adolescence, emerging adulthood, and adulthood. Clin. Psychol. Sci. 1, 41–53. doi:10.1177/2167702612457599

Spence, S.H., 2000. Spence Children's Anxiety Scale [Measurement instrument]. Retrieved from https://www.scaswebsite.com/index.php?p=1_9

Stallard, P., Skryabina, E., Taylor, G., Phillips, R., Daniels, H., Anderson, R., Simpson, N., 2014. Classroom-based cognitive behaviour therapy (FRIENDS): A cluster randomised controlled trial to Prevent Anxiety in Children through Education in Schools (PACES). Lancet Psychiatry. 1, 185–92. doi:10.1016/S2215-0366(14)70244-5

Stockings, E.A., Degenhardt, L., Dobbins, T., Lee, Y.Y., Erskine, H.E., Whiteford, H. A., Patton, G., 2016. Preventing depression and anxiety in young people: A review of the joint efficacy of universal, selective and indicated prevention. Psychol. Med. 46, 11–26. doi:10.1017/S0033291715001725

Teubert, D., Pinquart, M., 2011. A meta-analytic review on the prevention of symptoms of anxiety in children and adolescents. J. Anxiety Disord. 25, 1046-1059. doi:10.1016/j.janxdis.2011.07.001

Weersing, V. R., Brent, D. A., Rozenman, M. S., Gonzalez, A., Jeffreys, M., Dickerson, J. F., Lynch, F.L., Porta, G., Iyengar, S., 2017. Brief behavioral therapy for pediatric anxiety and depression in primary care. JAMA Psychiatry. 74, 571–578. doi:10.1001/jamapsychiatry.2017.0429

Werner-Seidler, A., Perry, Y., Calear, A.L., Newby, J.M., Christensen, H., 2017. School-based depression and anxiety prevention programs for young people: A systematic review and meta-analysis. Clin. Psychol. Rev. 51, 30–47. doi:10.1016/j.cpr.2016.10.005

Wichstrøm, L., Berg-Nielsen, T.S., Angold, A., Egger, H.L., Solheim, E., Sveen, T.H., 2012. Prevalence of psychiatric disorders in preschoolers. J. Child Psychol. Psychiatry. 53, 695–705. doi:10.1111/j.1469-7610.2011.02514.x

Wong, M., 2015. Voices of children, parents and teachers: how children cope with stress during school transition. Early Child Dev. Care. 185, 658–678. doi:10.1080/03004430.2014.948872

Table 1

Baseline comparability of the sociodemographic characteristics of 12-months follow-up participating children by intervention condition

Characteristics		Intervention group (n = 61)	Control group (n = 46)	Total (n = 107)	p-value
Children					
Female, *N* (%)		31 (50.8)	19 (41.3)	50 (46.7)	.32
Mean age (*SD*), years		7 (0.77)	6.80 (0.79)	6.92 (0.79)	.20
Years, *N* (%)					
	6 years	19 (31.1)	19 (41.3)	38 (35.5)	.44
	7 years	23 (37.8)	17 (37)	40 (37.4)	
	8 years	19 (31.1)	10 (21.7)	29 (27.1)	
School grade, *N* (%)					
	Year 1	21 (34.4)	24 (52.2)	45 (42.1)	.18
	Year 2	25 (41)	14 (30)	39 (36.4)	
	Year 3	15 (24.6)	8 (17.8)	23 (21.5)	
Nationality, *N* (%)					
	Spanish	59 (96.7)	46 (100)	105 (98.1)	.21
	Other	2 (3.3)	0 (0)	2 (1.9)	
Mean number (*SD*) of siblings		0.97 (0.79)	0.91 (0.62)	0.94 (0.72)	.70
Parents					
Female, *N* (%)		49 (80.3)	36 (78.3)	85 (79.4)	.79
Mean age (SD), years		42.83 (5.14)	39.76 (4)	41.51 (4.91)	.001
Family situation, *N* (%)					
	Married	52 (85.2)	40 (87)	92 (86)	.68

Separated or divorced	8 (13.2)	6 (13)	14 (13.1)	
Single	1 (1.6)	0 (0)	1 (0.9)	
Education, *N* (%)				
Primary education	12 (19.7)	5 (10.9)	17 (15.9)	.02
Secondary education	12 (19.7)	20 (43.5)	32 (29.9)	
Higher education	37 (60.6)	21 (45.6)	58 (54.2)	
Last-Year Family Income, *N* (%)				
(average monthly income)				
≤ 450€	2 (3.4)	0 (0)	2 (1.9)	.33
From 500€ to 999€	4 (6.8)	3 (6.7)	7 (6.7)	
From 1000€ to 1999€	15 (25.4)	16 (35.6)	31(29.8)	
From 2000€ to 2999€	18 (30.5)	15 (33.3)	33 (31.7)	
From 3000€ to 4999€	15 (25.4)	5 (11.1)	20 (19.2)	
≥ 5000€	5 (8.5)	6 (13.3)	11(10.6)	

Note. SSL = Super Skills for Life; SD = Standard deviation.

Table 2

Preintervention and 12-month follow-up marginal means and (SD) of the outcomes by intervention condition

	Intervention group		Control group	
	Pre-test	Follow-up	Pre-test	Follow-up
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Depression (MFQ-P total)	11.82 (0.42)	7 (1.15)	11.38 (0.50)	11.20 (1.10)
Overall Anxiety (SCAS-P total)	27.39 (0.79)	19.96 (1.44)	27.94 (0.95)	26.96 (2.43)
Panic/agoraphobia	1.44 (0.19)	0.60 (0.33)	1.95 (0.24)	2.62 (0.62)
Separation anxiety	7.09 (0.21)	5.06 (0.40)	6.79 (0.27)	5.46 (0.49)
Physical injury fears	4.45 (0.14)	3.40 (0.29)	4.71 (0.18)	4.99 (0.42)
Social phobia	6.77 (0.21)	4.98 (0.40)	6.60 (0.26)	6.33 (0.56)
Obsessive compulsive	1.80 (0.12)	1.11 (0.24)	1.99 (0.13)	1.88 (0.33)
Generalized anxiety	5.88 (0.19)	4.83 (0.35)	5.81 (0.24)	5.59 (0.50)
Total difficulties (SDQ total)	15.17 (0.30)	11.81 (0.71)	15.89 (0.41)	14.98 (0.81)
Emotional symptoms	4.92 (0.13)	3.21 (0.29)	4.62 (0.15)	4.48 (0.38)
Conduct problems	2.80 (0.10)	2.28 (0.24)	3.09 (0.13)	2.80 (0.24)
Hyperactivity/inattention	5.10 (0.44)	4.55 (0.43)	4.95 (0.47)	4.58 (0.50)

Peer problems	2.67 (0.11)	2.11 (0.27)	2.80 (0.15)	2.71 (0.27)
Prosocial behavior	7.43 (0.10)	7.72 (0.23)	7.53 (0.13)	7.65 (0.24)
Overall Child Anxiety-related	15.69 (0.72)	9.79 (1.42)	16.66 (0.83)	16.77 (1.59)
Interference (CALIS-P total)				
Outside home	4.78 (0.28)	2.78 (0.53)	4.97 (0.33)	4.86 (0.58)
Inside home	5.15 (0.22)	3.66 (0.44)	5.32 (0.26)	5.81 (0.48)
Parent interference	5.72 (0.34)	3.32 (0.68)	6.38 (0.43)	6.11 (0.86)

Note. SSL = Super Skills for Life; SD = Standard deviation. Higher scores denote greater symptomatology; except for Prosocial behavior.

Table 3

Generalized estimating equations model-based significance tests and effect size estimates for the intervention effect over the 12-month follow-up period

	AOR (95% CI)	*p*
Depression (MFQ-P total)	0.01 (0.001, 0.22)	0.004
Overall Anxiety (SCAS-P total)	0.002 (0.001, 0.18)	0.008
Panic/agoraphobia	0.21 (0.07, 0.63)	0.005
Separation anxiety	0.49 (0.15, 1.66)	0.25
Physical injury fears	0.26 (0.10, 0.70)	0.007
Social phobia	0.22 (0.06, 0.76)	0.017
Obsessive compulsive	0.56 (0.27, 1.17	0.12
Generalized anxiety	0.43 (0.14, 1.13)	0.14
Total difficulties (SDQ-P total)	0.08 (0.01, 0.61)	0.01
Emotional symptoms	0.20 (0.08, 0.49)	< 0.001
Conduct problems	0.79 (0.40, 1.52)	0.79
Hyperactivity/inattention	0.83 (0.38, 1.84)	0.66
Peer problems	0.62 (0.29, 1.32)	0.22
Prosocial behavior	1.19 (0.62, 2.25)	0.59
Overall Child Anxiety-related Interference (CALIS-P total)	0.002 (0.001, 0.16)	0.005
Outside home	0.15 (0.03, 0.74)	0.02
Inside home	0.13 (0.03, 0.50)	0.003
Parent interference	0.11 (0.01, 1)	0.05

Note. AOR = Adjusted odds ratio; CI = Confidence Interval; *p* = p-value.

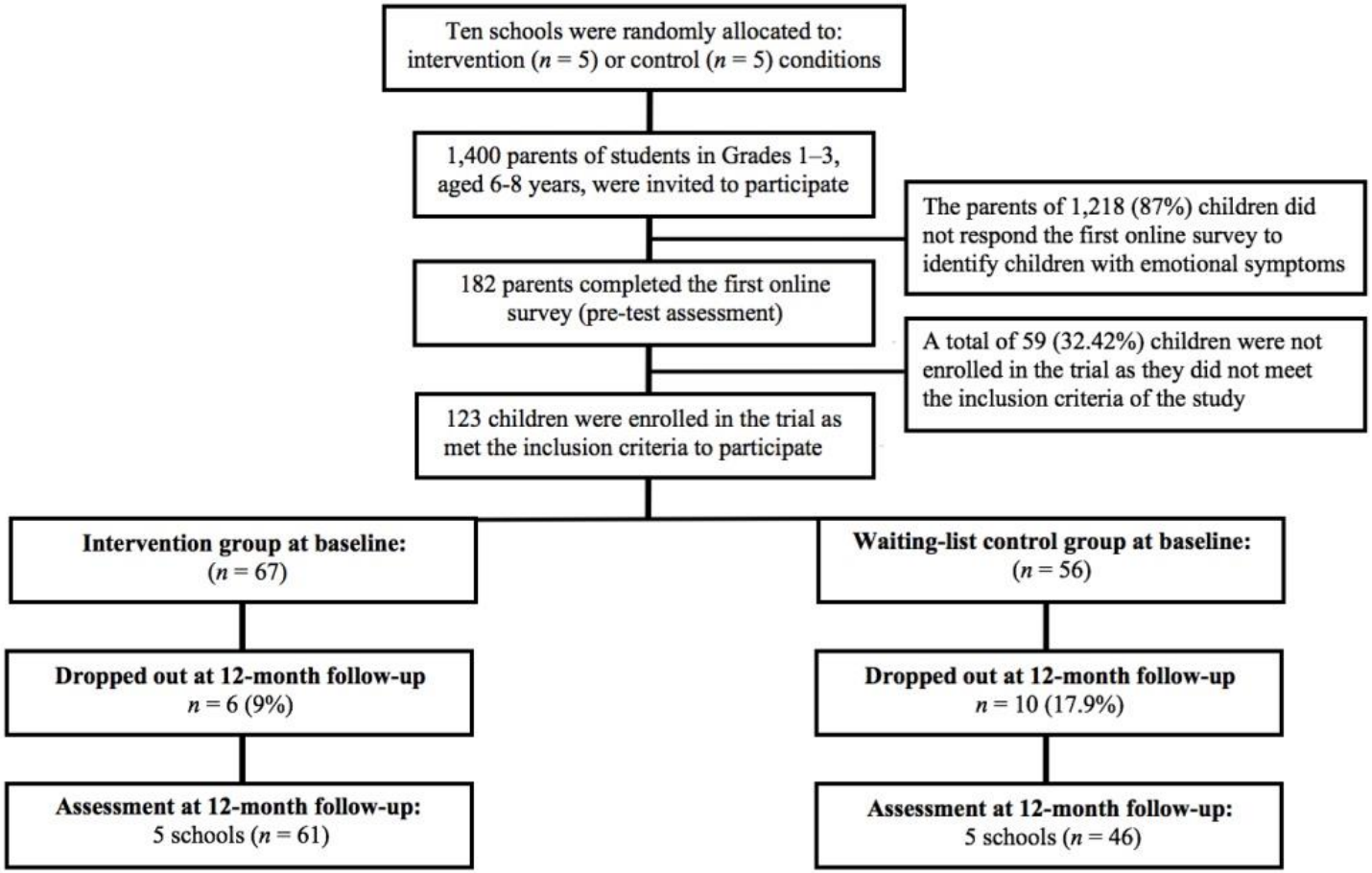

Figure 1. Flow of participants at baseline and 12-month follow-up.

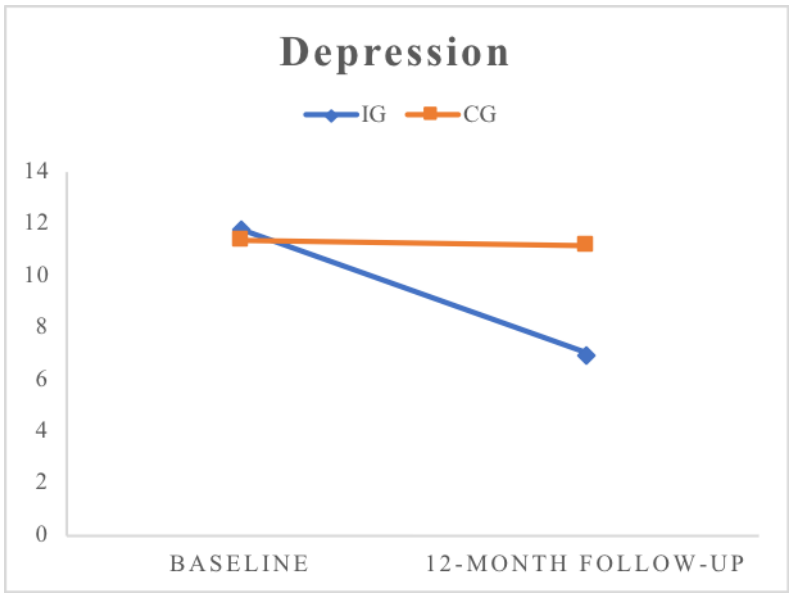

Fig. 2. Total MFQ-P score (marginal means) for each time period by condition.

Note. IG = Intervention Group; CG = Control Group; MFQ-P = The parent-report version of the Mood and Feelings Questionnaire.

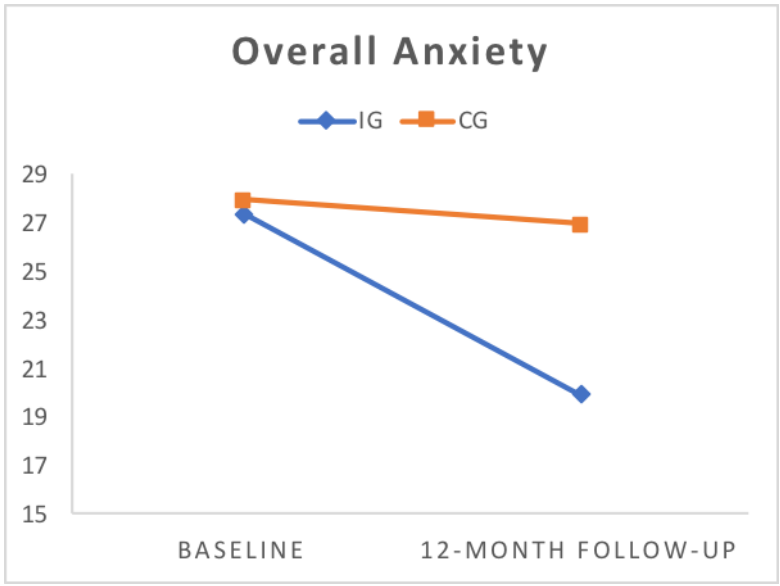

Fig. 3. Total SCAS-P score (marginal means) for each time period by condition.

Note. IG = Intervention Group; CG = Control Group; SCAS-P = The parent-report version of the Spence Children's Anxiety Scale.